GLOBAL O-RING and SEAL
ALL-AROUND BETTER

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Material Datasheet

Compound #: V75-B103 — FKM, Low Temperature

Material Summary		
Material Type:	FKM	
Durometer:	75	
Color:	Black	
Special Properties:	Low Temperature Resistant	
Recommended Temperature Range (Static):	-48°C to +200°C	
Specification:	Parker V1289-75	
Original Properties	**Requirements**	**Typical Results**
Hardness,(Shore A) (ASTM D2240-15)	75±5	77
Tensile Strength,psi(MPa) (ASTM D1414-22)	1300(min)	2167(14.94)
Elongation,(%) (ASTM D1414-22)	120(min)	178
Modulus at 100%,psi(MPa) (ASTM D1414-22)		984(6.79)
Density,(Mg/m^3) (CNS 5341-96,Method A)		1.86
Heat age, 70 Hrs @ 518℉ (270 ℃) (ASTM D573-04)		
Hardness Change, pts.	-10~+5	-2
Tensile Strength Change, %	-45(max)	-41
Elongation Change, %	-10(max)	+25
Weight Change, %	-10(max)	-7.7
Compression set in MIL-PRF-83282 Oil, 336 Hrs @ 275℉ (135 ℃) (ASTM D1414-22)		
-	35%(o-ring)(max)	13.2
Compression set, 22 Hrs @ 392℉ (200 ℃) (ASTM D1414-22)		
-	20%(o-ring)(max)	15.7
Compression set in Reference Oil 300, 336 Hrs @ 392℉ (200 ℃) (ASTM D1414-22)		
-	55%(o-ring)(max)	31.3
Reference Oil 300, 70 Hrs @ 392℉ (200 ℃) (ASTM D471-16a)		
Hardness Change, pts.	-10(max)	-6
Tensile Strength Change, %	-30(max)	-8
Elongation Change, %	-20(max)	-1
Volume Change, %	0~+10	+7.2
ASTM Fuel B Resistance, 70 Hrs @ 23 ℃ (ASTM D471-16a)		
Hardness Change, pts.	-10(max)	-7
Tensile Strength Change, %	-35(max)	-28
Elongation Change, %	-20(max)	-19
Volume Change, %	+1~+10	+4.9

Reference Oil 300, 70 Hrs @ 275℉ (135 ℃) (ASTM D471-16a)		
Hardness Change, pts.	-10(max)	-6
Tensile Strength Change, %	-30(max)	-6
Elongation Change, %	-20(max)	+3

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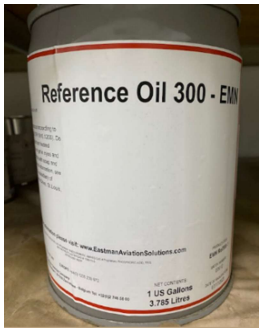
Volume Change, %	0~+10	+5.9
MIL-PRF-83282 Oil, 70 Hrs @ 275℉ (135 ℃) (ASTM D471-16a)		
Hardness Change, pts.	-7(max)	-3
Tensile Strength Change, %	-25(max)	-2
Elongation Change, %	-15(max)	+1
Volume Change, %	+6(max)	+2.3
Low Temperature Retraction Test (TR Test), (ASTM D1329-16)		
Testing Elongation 50%		
The Equipment of measure temperature: thermocouple		
Length of Sample: 51 mm		
Rate of Temperature increasing: 1℃/min		
Test Temperature: 26 ℃		
Coolant : Methanol		
TR10, ℃	-38(max)	-40.4

Eastman Reference Oil 300 (ARM 300)



ROYCO Synthetic Fire Resistant Hydraulic Fluid (MIL-PRF-83282)

*American Society for Testing and Materials

Report Date: 3/20/2024

Information within this report is believed to be accurate and reliable. However, Global O-Ring and Seal makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.